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U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
STATE DOCUMENTS

AND

STATE OF MONTANA
DEPARTMENT OF HIGHWAYS

FHWA-Mont.-EIS-71-14-F

FINAL
ENVIRONMENTAL STATEMENT
ADMINISTRATIVE ACTION
FOR

PROJECTS I 90-9(12)516 & F212(14)

LODGE GRASS NORTH &
LODGE GRASS CONNECTION



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THIS HIGHWAY IMPROVEMENT IS PROPOSED FOR FUNDING
UNDER TITLE 23, U.S.C. THIS STATEMENT FOR THE
IMPROVEMENT WAS DEVELOPED IN CONSULTATION WITH
THE FEDERAL HIGHWAY ADMINISTRATION AND IS
SUBMITTED PURSUANT TO:

42 U.S.C.
4332(2)(C)

Date 11-22-72 H.J. Anderson, Director
of Highways

By [Signature]
Administrator, Engineering
Division

APPROVED AND ADOPTED BY THE F.H.W.A.

Date _____ By _____
F.H.W.A. REGIONAL
ADMINISTRATOR

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ENVIRONMENTAL STATEMENT ADMINISTRATIVE ACTION LODGE GRASS NORTH AND LODGE GRASS CONNECTION
Projects I 90-9(12)516 & F212(14) (final)

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SUMMARY SHEET

I. TYPE OF ACTION

- (X) Administrative
- () Draft
- (X) Environmental Statement
- () Combined Environmental/Section 4(f) Statement
- () Legislative
- (X) Final

II. PROJECT DESCRIPTION

This project is a segment of I-90 between Hardin, Montana, and Sheridan, Wyoming.

It begins approximately 7.5 miles southeast of Crow Agency and extends 15.14 miles south to a point 1.6 miles southeast of the city of Lodge Grass. This project will be full control of access interstate roadway having two 12 foot travel lanes each direction with 10 foot outside and 4 foot inside shoulders separated by a varying width median. It will include various frontage and dozer roads, a grade separation at Reno Creek Road and an interchange east of Lodge Grass with a connector roadway (F-212(14)) to Lodge Grass. In addition to the separation at Reno Creek Road and the Lodge Grass Interchange the access to the area east of the interstate will be provided by two public and various private access facilities.

U.S. 87 will be left in place to serve local traffic west of the interstate.

III. ENVIRONMENTAL IMPACTS

The project will provide a fast, safe and efficient transportation facility for the traveling public. The existing character of the area should not be significantly altered due to this project, and no families will be displaced. Four or five families will have an increase in traffic noise; however, the selected alignment will divert traffic from the present highway U.S. 87, thereby, reducing noise for those families living along U.S. 87.

The project lies within the boundaries of the Crow Indian Reservation. Forty percent of right-of-way required is Indian owned. Almost all land taken is dry grazing supporting cattle. A small amount of irrigated land and dry farming land will also be taken. There are no national parks, monuments or forests in the immediate area. Custer's Battlefield National Monument is six miles north of the northern terminus of this project.

Wildlife of the area will receive some impact. Upland game habitat will be disturbed and the project will present a hazard to deer migrating between the hills to the east and the Little Big Horn River bottom lands to the west.

IV. ALTERNATIVES

One alternative, is not to build this project. This would not comply with the National Highway Defense Act and would leave a gap in the Interstate system.

Another alternate proposal alignment would be adjacent and parallel to the existing highway (U.S. 87). Similar public access facilities would be provided. A connector roadway at Lodge Grass would not be necessary. This proposal would cost approximately the same as the final selected route, but would impose a severe impact upon the local farm economy. Good farm land is limited in the immediate area. The hill route, therefore, was selected, as it reduces the amount of farm land taken out of production for right-of-way.

V. FEDERAL, STATE AND LOCAL AGENCIES AND OTHER ORGANIZATIONS FROM WHICH COMMENTS WERE REQUESTED.

* Indicates agencies from which comments were received.

Town Council
Town of Lodge Grass
Lodge Grass, Montana 59050

Crow Indian Tribal Council
Crow Agency, Montana 59022

County Commission
Big Horn County
Hardin, Montana 59034

* U.S. Forest Service
Federal Building
Missoula, Montana 59801

Economic Development Administration
415 First Avenue North
Seattle, Washington 98109

Weather Bureau
P.O. Box 11188
Federal Building
125 South State Street
Salt Lake City, Utah 84111

Office of Civil Defense
Federal Regional Center
Bothell, Washington 98011

* Corps of Engineers
Missouri River Division
Division Engineer
U.S. Army Engineer Division,
Missouri River
P.O. Box 10
(Downtown Station)
Omaha, Nebraska 68101

Department of Health, Education and
Welfare
9017 Federal Office Building
19th and Stout Streets
Denver, Colorado 80202

Department of Housing and
Urban Development
Federal Office Building
19th and Stout Streets
Denver, Colorado 80202

Indian Health Service
3 Seventh Street - West
P.O. Box 2143
Billings, Montana 59103

Environmental Protection Agency
1200 6th Avenue
Seattle, Washington 98101

Bureau of Sport Fisheries &
Wildlife (DOI)
P.O. Box 3737
730 E. Pacific Street
Portland, Oregon 97232

National Park Service (DOI)
1709 Jackson Street
Omaha, Nebraska 68102

Bureau of Outdoor Recreation
(DOI)
Room 407, U.S. Courthouse
Seattle, Washington 98104

Federal Power Commission
555 Battery Street
San Francisco, California 94111

Bureau of Land Management
Federal Building
316 North 26th Street
Billings, Montana 59101

Geological Survey Topography Div.
Federal Center
Denver, Colorado 80225

* Geological Survey
Water Resources Division
Federal Center
Denver, Colorado 80225

* Bureau of Reclamation
Region Six
Billings, Montana 59103

Soil Conservation Service
Federal Building
316 North 26th Street
Billings, Montana 59101

* Bureau of Mines
Intermountain Field Operations
Center
Denver, Colorado 80225

Federal Water Quality Administration
Northwest Region
Room 501. Pittcock Block
Portland, Oregon 97205

* Director
Montana Fish & Game Department
Helena, Montana 59601

Council of Natural Resources and
Development
425 Sam W. Mitchell Building
Helena, Montana 59601

* Montana Aeronautics Commission
P.O. Box 1698
Helena, Montana 59601

* School Board
Lodge Grass, Montana 59050

Rural Electrification Administration
Montana Associated Utilities
Rainbow Western Hotel
Great Falls, Montana 59401

Agricultural Stabilization and
Research Service
112 West 13th Avenue
Helena, Montana 59601

Postmaster
Lodge Grass, Montana 59050

* Director
State Department of Health
Helena, Montana 59601

* Department of Planning & Economic
Development
Capitol Post Office
Helena, Montana 59601

Superintendent
Bureau of Indian Affairs
Crow Agency, Montana 59022

Montana Soil Conservation
Committee
Room 224
Sam W. Mitchell Building
Helena, Montana 59601

* Montana Water Resources Board
Sam W. Mitchell Building
Helena, Montana 59601

State Council of Natural
Resources
Sam W. Mitchell Building
Helena, Montana 59601

VI. DATE DRAFT STATEMENT MADE AVAILABLE TO C.E.Q.

The draft statement was made available to the C.E.Q.
by letter of August 30, 1971.

FINAL STATEMENT

The following is an environmental Final Statement for Project I-90-9(12)516, Lodge Grass North and F-212(14), Lodge Grass Connector.

I. PURPOSE

The I-90-9(12)516 Interstate project is a part of the Interstate and Defense Highway system. The F-212(14) project is required to connect the existing highway (U.S. 87) and the city of Lodge Grass to the Interstate and to provide reasonable access for those persons wanting to use the Interstate roadway. These new roadways will supplement and eventually replace the present traveled way, (P.T.W.) U.S. 87 as the main highway facility through this area. The purpose of the Interstate system, aside from National Defense, is to give the road-user a high speed, safe roadway to traverse while traveling throughout the United States, and provide means to expedite the hauling of goods.

II. DESCRIPTION OF PROJECT

This project begins approximately 7.5 miles south-east of Crow Agency at Station 240 and extends 15.14 miles southerly to Station 1035 a point approximately 1.6 miles southeast of Lodge Grass. This project will be a new I-90 Interstate highway and will, more or less, parallel the existing present traveled way, U.S. 87, some one to one and a half miles east. An approximate 1.0 mile long connecting roadway, (F-212(14)) is included that connects the city of Lodge Grass to the Interstate. When completed, the project will become a part of the Interstate segment that connects Hardin, Montana, to Sheridan, Wyoming.

The traffic data for this project is as follows:

ADT	1965 - 1348
ADT	1991 - 4400
DHV	- 580
D	55% - 45%
T	15.6%
V	70 M.P.H.

The project is designed to current Interstate Standards. It will be a four-lane facility, two lanes each direction, with 12 foot wide driving lanes, 10 foot outside shoulders and 4 foot inside shoulders. Grades will not exceed 5%, and curves will be no greater than $3^{\circ}30'$. The primary connection to Lodge Grass will be a two-lane roadway with 12 foot driving lanes and 8 foot wide shoulders.

The alignment of this project parallels U.S. 87 for 0.9⁺ miles to Station 286 adding an additional two lane roadway to the existing two-lane Interstate. There will be a 70 foot center to center separation between roadways for this 0.9 miles. From Station 286, the Interstate will curve easterly toward the hilly terrain for 1.4⁺ miles to Station 360 with new four-lane construction. As the roadway then curves to the south, the roadway center to center separation will transition to 100 feet. From this point the four-lane Interstate will proceed 2.0 miles southerly until the roadway separation changes to 150 foot centers at Station 465. This separation continues for 2.9 miles and then transitions back to 100 foot separation at Station 615. Most of the area through which the roadway passes from Station 360 to Station 615 is in gentle rolling terrain, mainly unwooded grasslands. From Station 615 with roadways at 100 foot centers, the Interstate continues for 5 miles through steeper terrain having more vegetation in the form of brush and trees. At Station 880 the roadway traverses through more rugged and somewhat mountainous country with the roadway separation narrowing to 39 feet. At this point, the road passes east of a local historic point known as Signal Hill. After passing this hill, the roadway separation widens

to 100 foot centers and remains so to the end of the project, Station 1035+00. Independent vertical alignment for each of the two roadways is used wherever feasible throughout the 15 miles of roadway.

The proposed project includes an Interstate over grade separation at Reno Creek Road, realignment of 0.3 miles of Reno Creek Road, public access crossings at Station 432 (Long Otter Creek) and Station 605, an interchange near Lodge Grass, two rest areas, and various private access facilities and dozer roads. Rest area facilities will be provided for both eastbound and westbound traffic. The eastbound rest area is planned for an area near Signal Hill (Station 875) and the westbound rest area at Shavings Creek (Station 656).

New right-of-way, except for the first two miles, will be required. Existing right-of-way will be utilized for the first two miles. The required right-of-way width for the remainder will vary. The width of the majority of new right-of-way will be 400 feet. Areas such as Shavings Creek Rest Area at Station 656, the rest area at Station 875, and the Lodge Grass Interchange will require additional right-of-way. The Lodge Grass Connector right-of-way varies from 160 feet to 260 feet in width. Some

762 acres of right-of-way for the Interstate and 16 acres for the Lodge Grass Connector will be required. Small additional acreages will be required for easements.

Access to the Interstate roadway will be controlled throughout its length. Access to the Connector will not be controlled. Drainage and irrigation structures are designed to perpetuate existing flow patterns. Parallel bridges will be built over the Little Big Horn River near the beginning of this project for westbound traffic and the west frontage road. The existing two-lane bridge will be used for eastbound traffic. Major drainage crossings are at Long Otter Creek, Shavings Creek, Reservoir Creek, Slaughter Creek and Grey Blanket Creek. The Lodge Grass Connector will require a bridge over the Little Big Horn River.

III. DESCRIPTION OF EXISTING ENVIRONMENT

A. HUMAN RESOURCES

Big Horn County's population of 10,056 (1970 Census) for 5,000 square miles of land can be considered a very low density area. Population centers of Hardin (pop. 2,733), Crow Agency (pop. 1,000), and Lodge Grass (pop. 806) comprise almost one-half of the county's population. Seven homes are adjacent to this project. Five are on the

northerly end of the Interstate, and two are on the Connector. No homes sites will be taken. There are other homes scattered along the project, but are to the west along the Little Big Horn River. There are also some homes scattered to the east along Reno Creek Road, Owl Creek Road and Grey Blanket Creek Road..

B. PHYSIOGRAPHY AND GEOLOGY

The dominant physiographic feature of the area is a long river valley that runs north and south through the area. This valley is formed by the meanders of the Little Big Horn River. Low foothills rise to the west that eventually become a part of the Big Horn Mountains. The hills that rise to the west are part of the Rosebud Mountains.

Most tributaries to the Little Big Horn River flow east and west. Total relief in the immediate area does not exceed 700 feet.

The meanders of the Little Big Horn River have created a flood plain about a mile wide. The river valley is bordered by rolling hills formed by erosion of nearly flat-lying Cretaceous Age sediment. With local exceptions, the bedding of these sediments generally dips to the southeast at two to five degrees. From

north to south, the sedimentary formations are the Judith River Formation, followed by the Bearpaw Formation which are primarily shales with some sandstones. Farther south, Hell Creek sandstones and shales cap the sharp ridges and steep gulches and overlie the Bearpaw shales. On the west side of the river, the Parkman sandstone forms the river bluffs, but most of this formation is covered by alluvium and terrace gravels. Most of the shales are expansive to a varying degree.

Small streams flow through the area which are perennial except during droughts. Small reservoirs and ponds for stock watering common to this area are formed by dams on these streams.

C. LAND USE

Land in the immediate vicinity, except for the first two miles, is predominately dry agriculture and dry grazing. The first two miles of the project is through irrigated farm land. Dry farming produces small grains such as winter wheat, oats, and barley. The farm lands are mostly owned or leased by non-Indians. Indian lands are mostly dry grazing supporting livestock. There is some stripfarming at the south end of the project. Present use of land needed for right-of-way is; 2% irrigated, 14% dry agriculture and 84% dry grazing. Forty percent of the right-of-way is allotment

lands of the Crow Indians.

D. FISH AND WILDLIFE

The Montana Fish and Game Department does not consider the Little Big Horn River a sport fishery, although some catfish and trout are known to exist along with rough fish, such as suckers and carp. Pheasants abound along the river's brushy foothills. Waterfowl, such as ducks and geese, use the river as a resting place on their migration routes. Deer have been observed in the hills and have used the river valley as winter range during hard winters.

E. VEGETATION RESOURCES

As mentioned, the majority of the area is used for livestock grazing. Native grasses exist in these areas along with some sagebrush. The various draws and major drainages are brushy and wild plum trees exist here. At the south end, where the terrain is more rugged, coniferous trees dot the landscape.

F. CLIMATE

The climate is semi-arid with annual average rainfall of 15 inches. Most precipitation occurs during spring rains and winter snows. Frost penetration ranges up to 36 inches maximum. Frost action is severe in the

valley because of frost susceptible soils and extensive freezing and thawing. The temperature ranges from 106 degrees maximum to minus 40 degrees minimum. These extremes occur for only short periods. Prevailing winds are from the west and northwest.

G. TRANSPORTATION

The primary mode of personal transportation in the area is by car. There is some bus transportation available. Goods are brought by truck. The Burlington Northern, Inc. has a main line passing throughout the area, but passenger service has been discontinued, and this line is primarily used for long hauls between Billings and points south. There are sidings used for cattle loading in the area. A relatively new primary highway, U.S. 87, parallels this project and connects Sheridan, Wyoming, to Hardin, Montana. This highway is in fairly good condition and is a paved, high speed facility. Secondary roads that connect outlying ranching areas to U.S. 87 are well graveled roads. Four of the more important county roads in the area are: Reno Creek Road, Rotten Grass Creek Road, Grey Blanket Creek Road, and Owl Creek Road.

H. UTILITIES

The Mountain States Telephone and Telegraph Company and the Big Horn County Electric Cooperative Inc. serve the area. Their transmission lines generally run parallel to the P.T.W., U.S. 87. Some poles will require relocation where they cross the Interstate and Connector at the beginning and the end of this project.

I. SCENIC RESOURCES

There are no national monuments within the limits of this project. The nearest is the Custer Battlefield National Monument, which is near Crow Agency. There is a hill locally known as Signal Hill, which the early Indians used for signaling messages up and down the Little Big Horn Valley.

This is, however, the area where Custer moved his troops north to the Battle of the Little Big Horn. Garryowen is where Captain Reno fought the Indians during the Battle of the Little Big Horn. This area is adjacent to the Garryowen North and South Interstate project, adjoining this project to the north.

IV. EVALUATION OF ENVIRONMENTAL IMPACTS

A. Environmental Impact of the Proposed Action

Looking at the overall picture, this project will have little affect upon the area's environment. There will be little alternation to the existing character of the area. There will be no displacement or relocation of families or individuals. There will be no enhancement of work, school, recreational or religious activities, except the possibility of increased employment during construction. The highway will be an intrusion by man on land that is now somewhat remote and accustomed to only infrequent useage by man in the form of livestock roundups, periodic cultivation and hunting.

The physiography will be changed somewhat by the roadway cuts and fills. This will be reduced by slope rounding, providing transitional type cut and fill and topsoiling cut and fill slopes. Nothing can be done to eliminate the roadway surface from being visible. For the most part, independent vertical alignment of roadways is used to further blend with the terrain. On the south end, where steep hills are encountered, the roadway median is narrowed to reduce the impact on the land.

There are some localized land slide areas west of the project and north of Singla Hill, (Station 770 and Station 885). Most of these slide areas were created by the meanders of the Little Big Horn River undercutting a steep hillside. This project will avoid these areas.

The impact on land use is slight. To our knowledge, there are no recreational lands affected. Primarily, land used for grazing will become the right-of-way. Near the beginning (Station 310) and near the end (Station 1010) cultivated lands will be taken for right-of-way. At Station 310 the land that remains after the right-of-way take will continue producing as before, mainly hay. At Station 1010 the remaining land use east of the Interstate will probably be reorientated from raising grain to cattle grazing.

Access to farm and grazing areas east of the Interstate will receive little impact. Presently, access is obtained through a series of trails and low class dirt roads. All of the access points will be reinstated resulting in very little out-of-direction travel.

There is no additional air and water pollution anticipated by reason of this highway. Pollutants from car emissions will be shifted east from the existing

highway and will increase as traffic increases. Water pollution may occur during construction, and will be very temporary in nature. The area's water table is not expected to be affected.

There is little or no fish life affected. Some fish life will be disturbed when the river crossings on the Interstate and Lodge Grass Connector are built and riprap placed. Wildlife, particularly deer, will be affected by the barrier the roadway will form between the hills and low land river bottom. Upland game will lose some habitat area. This is small compared to the overall area, but, nevertheless, represents a loss.

Native grasslands will be lost to highway right-of-way, along with some brush and scrub timber lands. Reseeding will replace native grasses where disturbed. Brush and scrub timber within the roadway fills and cuts will be lost along with any plant life within the roadway paved area. The roadway should not affect the area's climate.

Utilities, both telephone and electric will not be affected permanently. Relocation of these facilities will be provided for during the construction of this project.

B. ADVERSE ENVIRONMENTAL EFFECTS WHICH CANNOT BE AVOIDED

An adverse environmental effect that cannot be avoided, aside from right-of-way taking, is constructing an Interstate relatively close to a group of dwellings. This is in the area of Reno Creek Road Grade Separation. Presently, the two-lane highway (U.S 87) is about 500 feet from the nearest house and about 10 feet higher in elevation. This project will result in a four-lane highway, constructed within 250 feet of the nearest home and the closest lane (westbound) 25 feet higher in elevation. Since the traffic will be shifted closer to these dwellings, the noise level will increase.

The Lodge Grass Connector portion of this project will pass between two dwellings. These dwellings are located 115 feet left and 100 feet right of the centerline of the roadway. Where now only an access approach to U.S. 87 exists, highway traffic will be passing through. This represents an intrusion into these individual's privacy. An area now used for parking and farm area will be taken for right-of-way. Adequate approaches will be provided for these dwellings.

As mentioned, this project will impose a hazard for deer migrating to and from the hills to the east and

the river bottom lands to the west." According to the Montana Department of Fish and Game there are no defined migration routes in this area. Deer will be exposed to traffic hazards. Flat curves, vertical and horizontal, will provide good sight distance along with a one-way roadway where a motorist can maneuver. This will help reduce accidents between car and deer. However, deer will be killed. This is unavoidable.

Expansive clays will be encountered when the roadway cuts are made. When outside moisture comes in contact with these expansive clays, swelling will occur causing damage to the roadway surface. Asphalt treated base and an asphalt membrane ditch lining will be used to prevent intrusion of outside moisture and thus prevent swelling. Because quality gravel is relatively scarce in the area, asphalt treated base will be used to reduce the amount of gravel used. However, the use of gravel and asphalt represents an unavoidable loss of natural resources.

C. ALTERNATIVES

One alternative is not to build this project. This would not comply with the National Highway Defense Act, and would leave a gap in the Interstate Highway system, more particularly in the I-90 route.

Two basic routes were considered during the location phase. Both were presented at the location hearing. Both began and ended in the same general area. One was called, "Hill Route" or "Alternate A", and is generally the route described herein. The alternate route labeled "Valley Route" or "Alternate B" was parallel and adjacent to the existing primary highway U.S. 87. This route would have been slightly shorter than the hill route. Construction cost estimates of the two routes were approximately the same. The Hill Route was selected primarily because it required less river bottom farm land for right-of-way, thus creating less impact on the farm economy of the area.

Generally, the citizens of Lodge Grass and the surrounding rural population favored the Hill Route.

The Valley Route would not impose as great a barrier to and from the river for deer migrations as would the Hill Route; however, wildlife habitat loss would be more severe since brushy river bottom lands would be used for right-of-way. It would have the same affect upon the group of homes on Reno Creek Road as there would still be a grade separation. The Valley Route would not require a connecting roadway and, therefore, would not affect the two dwellings on the Lodge Grass Connector as would the Hill Route.

Access with "Alternate B" would be similar to the access provided by "Alternate A" by means of frontage roads and interchanges. A full diamond type interchange at Reno Creek Road was included with both alternates as presented at the location hearing. A petition and vocal desires by the local population at the Garryowen North and South I-90 public hearing requested access to the Interstate at Garryowen, some three miles north of the Reno Creek Road. Due to the proximity of these two points, the proposal for an interchange at Reno Creek Road was eliminated and an interchange was added at Garryowen. Subsequently, a study was made to determine a route that would utilize more of the existing highway, which previously was constructed to Interstate Standards. The result of this study was the rerouting of 2.2 miles of proposed alignment. This route would now utilize 0.9 miles of two-lane interstate, have a grade separation at Reno Creek Road and would require 1.3 miles of frontage road to re-establish local access. The final result is a design that includes an interchange at Garryowen on the adjoining I-90 project, elimination of a proposed channel change at Little Big Horn River crossing and the utilization of previously purchased right-of-way between

Stations 240, (beginning) and Station 300, (Reno Creek Road). The new frontage road west of the existing highway will remove some large cottonwood trees adjacent to the railroad and will require a slope easement from the railroad. It will eliminate some mosquito breeding areas formed by water trapped between the railroad and the existing highway.

D. Relationship Between Short-Term Uses and Long-Term Productivity

In the vicinity of this project, it can only be estimated that short and long term use of man's environment will be of an agricultural and ranching nature due to geography and climate of the area. There are a few oil wells in the area that are currently producing. This project will not displace any existing oil wells. A development of an extensive oil field would change the economy and utilization of natural resource. The proposed project compliments these uses by improving the transportation plan of the area.

E. Irreversible and Irretrievable Commitments of Resources

This project makes no irreversible or irretrievable commitment of resources with the exception of large quantities of gravel to be used in the road surface and the taking of some agricultural land for right-of-way.

The gravel sources are limited in the area. A surfacing design that utilizes more asphalt and less gravel will be used to conserve this material and to seal the sub-grade to prevent expansion of local shales.

V. BENEFITS

A faster, safer and more efficient highway will be built, thereby, benefitting all users. This area, which is devoted mostly to farming and ranching with some oil well development will benefit by an improved farm-to-market movement. The city of Lodge Grass feels the location of the Lodge Grass Interchange and the connecting highway to the city will benefit their tourist business.

The two rest areas are located and designed to give the motorist the maximum benefit of being away from the roadway and in an area of peace and quiet.

VI. MINIMIZING ADVERSE ENVIRONMENTAL EFFECTS

The foremost considerations for minimizing adverse environmental effects has been directed towards the hill-sides and all other disturbed areas. Curvalinear roadway alignment will be used along with separate roadway elevations to "fit" the road to the terrain. Where this is not possible,

the distance between roadways was reduced to minimize scars. Slope rounding, constructing variable fill and cut slopes, topsoiling and seeding of disturbed areas are all efforts to minimize environmental damage. Contour grading will be used on the Lodge Grass Interchange to improve its aesthetics. Both rest areas are designed to retain as much natural vegetation as possible. Trees will be avoided in constructing access dozer roads.

The utilization of the existing highway between the beginning of this project and Reno Creek Road will reduce the impact upon the riparian ecosystem of the Little Big Horn River by eliminating a proposed channel change and by not clearing a one mile, 340 foot wide swath of river bottom land. Right-of-way take will also be reduced by this realignment.

VII. PUBLIC HEARING COMMENTS AND COMMENTS FROM OTHER AGENCIES

A public hearing relating to the location of the Lodge Grass North project was held in Lodge Grass, Montana on July 9, 1968. Two proposed alternate locations for the Interstate highway were presented. The alternate locations were the "A"-Line called, "hill route" and the "B"-Line called, "valley route.

The "valley route" was located adjacent to the present U.S. Highway 87.

A petition stating that it favored the "hill route" was presented. This petition was signed by approximately 90% of the landowners along the valley.

Comments by the citizens at the hearing indicated that they favor the "hill route".

The "hill route" was selected for design as a result of this hearing.

A public hearing relating to the proposed major design features for the new Lodge Grass North Interstate project and the proposed location and major design features of the new Primary highway connection from I-90 to Lodge Grass was held in Lodge Grass, Montana on October 28, 1971. The plans for the Interstate were well received and no major problems were brought to light.

Two proposed alternate locations for the Lodge Grass Interchange were presented; one located one mile east of Lodge Grass, the other located on the Owl Creek-Grey Blanket Creek Road. The Mayor, Town Council and Community of Lodge Grass indicated that they favored the Interchange location one mile east of Lodge Grass.

The location one mile east of Lodge Grass was selected for the Lodge Grass Interchange as a result of this hearing. There were no other comments concerning the Primary Connection.

Following are letters of comment on the draft environmental statement. Where a response is in order, it follows the letter.

Region One, Missoula, Montana 59801

REPLY TO: 1940 Environmental Statements

Sep OCT 4 1971

SUBJECT: Environmental Statement--I-90-9(12)516 Lodge Grass North
F-212(14) Primary Connection to Lodge GrassTO: Lewis M. Chittim, State Highway Engineer
Montana State Highway Department
6th Avenue and Roberts
Helena, Montana 59601We have reviewed the subject environmental statement and have
no comments.*for Keith M. Thompson*
STEVE YURICH
Regional Forester

Date Recd. Preconst. <u>10-5-71</u>				
Act	Info	MAIL ROUTE	Attach	Initial
		30 CORP. PLAN		
		30 Field Design		
		30 Surveying Design		
		31 Office Engineers		
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DEPARTMENT OF THE ARMY
OMAHA DISTRICT, CORPS OF ENGINEERS
7410 U.S. POST OFFICE AND COURT HOUSE
OMAHA, NEBRASKA 68102

RECEIVED
OCT 15 1971

HELENA, MONTANA

MROED-

5 October 1971

Lodge Grass No.

Mr. Grover O. Powers, P.E.
Preconstruction Engineer
Montana Highway Commission
Helena, Montana 59601.

Dear Mr. Powers:

This will acknowledge your letter of 30 August 1971, transmitting the Draft Environmental Impact Statement for Projects I 90-9(12)516 and F 212(14).

The proposed work would have no effect upon existing Corps of Engineers' projects or upon projects under consideration by this office at this time.

Section 3.E, "Effect on the Pattern or Behavior of Wildlife Species and Wildlife Breeding, Nesting, or Feeding Grounds", does not appear to be adequately discussed. This section does not tell us how many deer migrate between the river and hills and how much, if any, of the project area is grazing or forage for the deer. If this is an important crossing for the deer, then they may create a safety hazard for non-local motorists traversing the highway.

Section 5. "Alternatives" does not include the "no action" option. I realize this section of highway represents a link in a major interstate system, but a discussion of the "no action" alternative would give balance to the Environmental Impact Statement.

Sincerely yours,

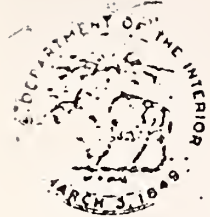
R. G. Burnett
R. G. BURNETT
Chief, Engineering Division

Date Recd. Preconst. 10-15-71	MAIL ROUTE	30 Oct 1971	31 Oct 1971	32 Oct 1971	33 Oct 1971	34 Oct 1971	35 Oct 1971	36 Oct 1971	37 Oct 1971	38 Oct 1971	39 Oct 1971	40 Oct 1971	41 Oct 1971	42 Oct 1971	43 Oct 1971	44 Oct 1971	45 Oct 1971	46 Oct 1971	47 Oct 1971	48 Oct 1971	49 Oct 1971	50 Oct 1971	51 Oct 1971	52 Oct 1971	53 Oct 1971	54 Oct 1971	55 Oct 1971	56 Oct 1971	57 Oct 1971	58 Oct 1971	59 Oct 1971	60 Oct 1971	61 Oct 1971	62 Oct 1971	63 Oct 1971	64 Oct 1971	65 Oct 1971	66 Oct 1971	67 Oct 1971	68 Oct 1971	69 Oct 1971	70 Oct 1971	71 Oct 1971	72 Oct 1971	73 Oct 1971	74 Oct 1971	75 Oct 1971	76 Oct 1971	77 Oct 1971	78 Oct 1971	79 Oct 1971	80 Oct 1971	81 Oct 1971	82 Oct 1971	83 Oct 1971	84 Oct 1971	85 Oct 1971	86 Oct 1971	87 Oct 1971	88 Oct 1971	89 Oct 1971	90 Oct 1971	91 Oct 1971	92 Oct 1971	93 Oct 1971	94 Oct 1971	95 Oct 1971	96 Oct 1971	97 Oct 1971	98 Oct 1971	99 Oct 1971	100 Oct 1971
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Although there is known to be deer migration between the Rosebud Mountain foothills, and the Little Big Horn River Valley, the exact number of animals migrating has not been determined. However, according to the Montana Department of Fish and Game this project does not lie across any important crossings.

Any deer crossing a highway is an unavoidable safety hazard. This hazard exists throughout this entire area.

The "No Action" is now included in this statement.



UNITED STATES
DEPARTMENT OF THE INTERIOR

BUREAU OF RECLAMATION

IN REPLY
REFER TO: 205/750

SEP 13 1971

REGIONAL OFFICE, REGION 6

P. O. BOX 2553

BILLINGS, MONTANA 59103

HELENA, MONTANA

SEP 10 1971

State Highway Commission
Attention: Mr. Grover O. Powers
Helena, Montana 59601

Subject: Environmental Statement for I 90-9(12)516 Lodge Grass-North
and F 212(14) Primary Connection to Lodge Grass

Gentlemen:

We appreciate the opportunity to review and comment on the draft environmental statement you transmitted to us by letter dated August 30, 1971.

The Bureau heartily concurs in your selection of the hill route over the valley route in that it places, for the most part, the alignment through nonagricultural land.

Future plans for development of the Pick-Sloan Missouri Basin Program include three irrigation units which would receive a water supply from the Little Bighorn River. Your revised and currently proposed alignment cuts through the lower portion of the potential Benteen Flats Unit in Sec. 15, T. 4 S., R. 35 E. However, it will probably be several years in the future before development of the Unit.

On the basis of retention of potentially irrigable lands, we prefer the so-called "Original Alignment" through Section 10 with the interchange at Garryowen in place of your route selection through Section 15. However, our position in this regard is not inflexible and we would be willing to go along with the recommendation of the Crow Indian Tribal Council and the Bureau of Indian Affairs.

Sincerely yours,

Martin H. McQuinn
Acting Regional Director

RETURN TO	STATE HIGHWAY COMMISSION	CHIEF ENGINEER	PLANNING DIVISION	ENGINEERING DIVISION	BRIDGE DIVISION	RIGHT OF WAY DIVISION	ASST. TO DIR.	CONSTRUCTION DIVISION	MAINTENANCE DIVISION	MATERIALS DIVISION	TRUCK
Mr. Powers											
Mr. [unclear]											
Mr. [unclear]											

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

Office of
Chief

Intermountain Field Operation Center

BUILDING 20
DENVER FEDERAL CENTER
DENVER, COLORADO 80225

October 8, 1971

Your reference:
I 90-9(12)516
Lodge Grass-North
F 212(14)
Primary Connection
to Lodge Grass

Mr. Lewis M. Chittim
State Highway Engineer
Montana Highway Commission
Helena, Montana 59601

Dear Mr. Chittim:

We reviewed the Draft Environmental Statement for the I 90 Lodge Grass-North highway and connection project proposals, in response to your August 30 letter of transmittal.

Our search of file and library data indicated that the proposed construction projects would have no significant environmental impacts on the Grass Lodge oil and gas field, the very limited local gravel deposits, and other mineral resources reported in adjacent parts of Big Horn County.

Therefore, we have no comments to offer at this time.

Sincerely yours,

O. M. Bishop, Chief

O. M. Bishop, Chief
Intermountain Field Operation Center

cc: D. P. Shoup, Field Representative, Missouri Basin Region

[illegible]

STATE OF MONTANA

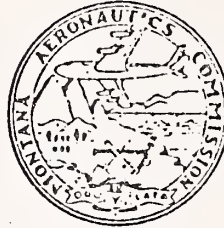
OFFICERS:

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HELENA
RICHARD O'BRIEN, VICE-CHAIRMAN
CONRAD
MICHAEL D. FERGUSON, SECRETARY
BILLINGS

DIRECTOR:

WILLIAM E. HUNT

OCT 13 1971



AERONAUTICS COMMISSION

P. O. BOX 1698

HELENA, MONTANA 59601

TELEPHONE 406-449-2506

MEMBERS:

ROBERT G. BRICKER
MISSOULA
TOM BURRIS
KOLIN
JOHN HEBBELMAN, JR.
CHINOOK
DAVID L. MATOVICH
COLUMBUS

Date Recd. Preconst 10-13-71

St	Info	MAIL ROUTE	Attach	Initial
		30 Civil Eng		
		30 Field Design		
		30 Structural Design		
		31 Civil Eng		
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		32 Landscape		
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October 8, 1971

Montana Highway Commission
6th & Roberts
Helena, Montana 59601

Re: I-90-9 (12) (516)
F 212 (14)

Gentlemen:

The Montana Aeronautics Commission has reviewed the draft environmental statement on the above referred to projects. We would concur that adequate steps have been taken to assure the very minimum detriment to the environment caused by the construction of the proposed project.

The projects will not affect in any way any public use airport or their associated required air space.

Very truly yours,

William E. Hunt, Director

Worthie M. Rauscher
Worthie M. Rauscher
Deputy Director

RETURN TO N & F	STATE OF MONTANA	CHIEF COUNSEL	ASST. S.H.C. - ADMIN.	ACCOUNTING	PLANNING DIVISION	ASST. S.H.C. - LEGAL	OFFICE	INFORMATION	RECORDS & COMM.	ASST. S.H.C. - TECH.	CONSTRUCTION	MAINTENANCE	MATERIALS	OTHER
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Grass Public Schools

Lodge Grass, Montana

District No. 27.

Phone 639 - 2831

Lodge Glass Indians

HELENA, MONTANA

Montana Highway Comm.

Mr. Lewis M. Chittton
State Highway Engineer.

We received two Environmental Statement packets,
one from Gaydon, Mont to Lodge Shan and one
from Lodge Shan to Wyo. board.

These were reviewed at our last school board meeting with the result of - No consent. Thought I should relay this too you as requested.

The Board took no action, made no comments, nor recommendations.

[illegible]

✓ L & Sheik, Sept.



State of Montana

State Department of Health

JOHN S. ANDERSON, M.
EXECUTIVE OFFICER

RECEIVED

SEP - 9 1971

HELENA, MONTANA

HELENA, MONTANA 59601

September 7, 1971

Mr. Lewis M. Chittim
Montana Highway Commission
Helena, Montana 59601

Re: I 90-9(12)516
Lodge Grass-North
F 212(14)
Primary Connection to
Lodge Grass

Dear Mr. Chittim:

This office has reviewed the draft environmental statement for the above mentioned project. We assume that the necessary precautions will be taken during construction to keep turbidity reaching the drainages in the area to a minimum. Other than this, we have no comments to make.

Sincerely yours,

Claiborne W. Brinck

Claiborne W. Brinck, P.E., Director
Division of Environmental Sanitation

CWB/DGW/pb

To Mr. Beckert

Act No.	RETURN TO W & F	WAY HE REIGNED	STAT. & ENGR.	CHIEF COUNSEL	ASST. CHIEF COUNSEL	ACCOUNTING	PLANNING & SURVEY	ASST. CHIEF ENGINEER	ENGINEERING	RIGHT OF WAY	ASST. CHIEF ENGINEER	CONSTRUCTION	MAINTENANCE	MATERIALS	OFFICE

Montana Standard Specification, Section 07.11,
outlines the siltation and water pollution pre-
vention measures to be taken during construction.

STATE MONTANA HIGHWAY COMMISSION
RECEIVED
MONTANA
SEP 8 1971

DEPARTMENT OF PLANNING AND ECONOMIC DEVELOPMENT

File No. 71H-185

MAIL:
CAPITOL STATION
HELENA, MONTANA

HELENA, MONTANA

OFFICES:
1716 NINTH AVENUE
406 449-2400

September 2, 1971

Mr. Grover O. Powers, P.E.
Preconstruction Engineer
Highway Commission
Capitol Station
Helena, Montana 59601

Date Recd. Preconst. 9-3-71	MAIL ROUTE	30 GOPI ROTH	30 Field Design	30 Surveying Design	31 Office Engineers	32 Landscaping	33 East Region	34 Hydrating	35 Traffic	37 Pav. Planning	38 Roadway	39 Construction Division	40
	Info												
Act													

Dear Mr. Powers:

Reference is made to your letter of August 30, 1971, which summarized and Environmental Statement of highway project I90-9(12)516, Lodge Grass-North, F 212(14), Primary Connection to Lodge Grass.

We have reviewed the statement and concur with its contents.

Sincerely,

Lyle E. Balderson

Lyle E. Balderson, Director
Community Development Division

LEB:LFM:es

COMMISSIONERS

FORREST H. ANDERSON
GOVERNOR

PERRY F. ROYS
CHAIRMAN AND
EXECUTIVE DIRECTOR

BOYD W. CANNON
HELENA

FRANK CRISAFULLI
GLENDALE

DALE C. HAWKINS
BILLINGS

W. L. BILL HOLTZ
GREAT FALLS

JO. JUFFATTO
M. JULIA

ALL	Inf	RETURN TO M & F
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		CHIEF COUNSEL
		ASST. ADMIN.
		AC
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		CON
		RIGHT
		ASST. S.H.E. W.
		CONSTRUCTION
		MAINTENANCE
		TRALS





MONTANA WATER RESOURCES BOARD

SAM W. MITCHELL BUILDING

HELENA, MONTANA

59601

GOVERNOR FORREST H. ANDERSON, CHAIRMAN

NOV -3 1971

HELENA, MONTANA

DOUGLAS G. SMITH, DIRECTOR, HELENA

EVERETT REDEEN, FORSYTH

JOSEPH B. REBER, HELENA

WILBUR WHITE, VICE CHAIRMAN AND SECRETARY, TWOODOT
HOMER C. BAILEY, CORVALLIS
RILEY OSTBY, WOLF POINT

October 26, 1971

RETURN	DAY	STATE	CHIEF	ASST.	ACCOUNT	PLANNING	ASST.	BRIDGE	PAVEMENT	RIGHT	ASST.	CONSTRUCTION	MAINTENANCE	MATERIALS	OTHER

Lewis M. Chittim
State Highway Engineer
Montana Highway Commission
Helena, Montana 59601

Dear Lew:

Our Environmental Coordinating Committee has looked at your Lodge Grass-North and the Primary Connections to Lodge Grass. Since we recently commented on the interstate south of Lodge Grass to the Wyoming line, many of our comments on this segment of the interstate are identical and therefore, we will not repeat.

1. We wish to commend you for the alignment on this project and feel that where possible the interstate location should take advantage of terrain that isn't satisfactory for agricultural purposes.
2. We hope that the highway design will incorporate some interpretation of the historic features of the area (Custer Battle, etc.) at the proposed rest stops.
3. We are glad to see the rest areas on this segment and hope that these are designed to the site and not "rubber stamped".

Thank you for giving us the opportunity to review your project.

Sincerely,

MONTANA WATER RESOURCES BOARD

Douglas G. Smith

Douglas G. Smith
Director

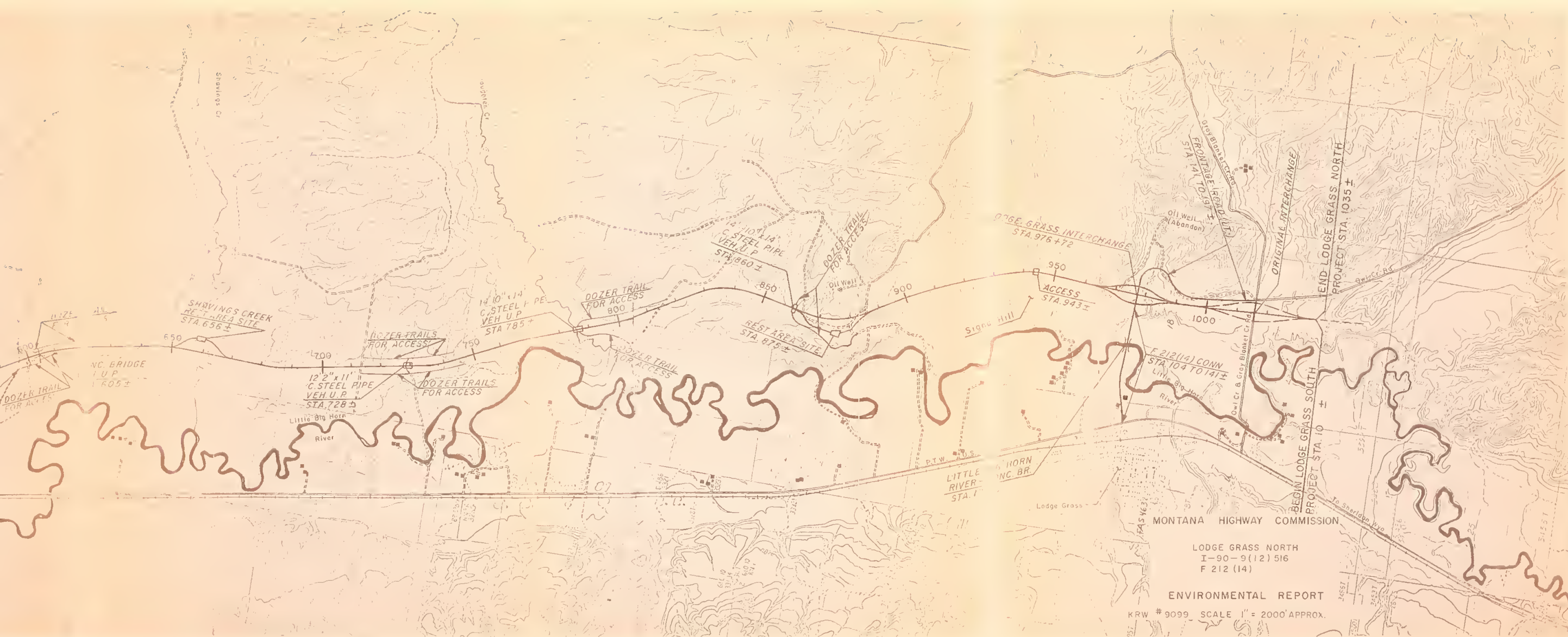
Mr. Beckert

DGS/DM/tr

A historic sign is proposed to be located at the westbound rest area at Shavings Creek. This sign would indicate the historic significance of the surrounding area.

Rest areas are designed to "fit" the selected location with the minimum environment damage.





MONTANA HIGHWAY COMMISSION

LODGE GRASS NORTH
I-90-9(12) 516
F 212 (14)

ENVIRONMENTAL REPORT

KRW # 9099 SCALE 1" = 2000' APPROX.

